(M) MOTOROLA

Security Classification
Motorola Confidential Proprietary
(When Completed)

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AFTER A # IS ASSIGNED ____

PAGING PRODUCTS GROUP

PATENT DISCLOSURE

Rev. O 5/31/95   SUBMITTED PURSUANT TO EMPLOYEE AGREEMENT

INTELLECTUAL PROPERTY DEPT. USE ONLY

DISCLOSURE NO. _PT 03/91 U_

DATE _12/31/98_

PATENT COMMITTEE ACTION _12/31/98_

THIS SECTION TO BE COMPLETED BY INVENTOR(S)

1. Name of invention: (Limit to ten words.)
METHOD TO SELECTIVELY DELIVER A MESSAGE BASED ON A REFERENCE POINT.

2. Documentation Date: (Attach log sheets, drawings, etc., to support the earliest date you documented your idea.)
10/17/98

3. Whom did you first tell about your invention? Name: CARLOS B./L. DEBARROS Date: 10/17/98

4. Is this disclosure being submitted as a Design disclosure? Yes ___ No ✓
If Yes, please attach a completed PPG DESIGN DISCLOSURE FORM along with this disclosure.

5. What problem is solved by this invention? (Attach additional sheets if necessary.)
SEE ATTACHMENT

6. What is the closest known technology? (Attach additional sheets if necessary.)
SEE ATTACHMENT

7. What is this invention? [AN ABSTRACT IS REQUIRED BELOW] Use additional sheets if necessary to describe
how it resolves the problems in a new or novel way not accomplished by the closest known technology. **NOTE:** If
your invention doesn't accomplish something new, or in a novel way, then it is likely NOT patentable.

TO BE ABLE TO SELECTIVELY DELIVER A MESSAGE TO A SELECTED
NUMBER OF DRIVERS ACCORDING TO AN OPTIMAL CRITERIA.

SEE ATTACHED

THIS SECTION TO BE COMPLETED BY AN ENGINEERING OR PRODUCT MANAGER (or higher) ONLY

1. Product to be used in/on: (If a process, name the first product the process was/is to be used on.) SEE ATTACHED
BUSINESS MODEL MAY FORCE US IMPLEMENT THIS IDEA IN TAXIS LIBRES.

2. Has/Is/Will this product been/being/be offered for sale? Have products incorporating this invention been described,
quoted, or demonstrated to a customer? Have orders been accepted for the product? Explain the circumstances.)
PRODUCT HAS NOT BEEN OFFERED FOR SALE.

3. If item 2 is yes, when was/will the first offer for sale of a product incorporating this invention (be) made?
Date: Q199   not offered yet 6/30/99 RLO

4. When is the estimated ship date? Q299 unknown 6/30/99 RLO

5. When was/will the first disclosure outside of Motorola (be) made? NONE

6. How will the disclosure be made (state title and date of publication, if any) and to whom?
PROPOSITION TO TAXIS LIBRES

7. Was a non-disclosure agreement signed? Yes ___ Date: _____ No ✓

8. Engineering or Product Manager's Name (Type): _____ Phone: _____

I attest to the accuracy of the above information.

Signature of Engineering or
Product Manager
(or higher): _[signature]_   Date: _12/18/98_

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INVENTOR'S SIGNATURES:

INVENTOR'S FULL SIGNATURE	DATE
(signature)	12/11/98
(signature)	12/18/98
(signature)	12/18/98

WITNESSES' NAMES AND SIGNATURES:

THE WITNESSES, IN SIGNING THIS FORM, ATTEST TO THE FACT THAT THEY UNDERSTAND THE INVENTION.

WITNESS'S FIRST/LAST NAME (TYPE)	PHONE	WITNESS'S FIRST/LAST NAME (TYPE)	PHONE
AVRA MEALEY	954-267-5529	GAIL BOUTIN	954 267 5300

WITNESS'S FULL SIGNATURE	DATE	WITNESS'S FULL SIGNATURE	DATE
(signature)	12/18/98	*(signature)*	954 267-5300

NOTE: BEFORE SUBMITTING, ALL BLANKS MUST BE COMPLETED AND ALL ADDITIONAL SHEETS MUST BE SIGNED, DATED, AND WITNESSED BY *ALL* INVENTORS AND TWO WITNESSES.

5) What problem is solved by this invention?

The tracking and controlling of fleets (i.e. taxis, delivery trucks, etc....) is a very important issue to assure efficiency and customer satisfaction with respect to the timely pick-up as well as the selection of the member of the fleet in the optimal location for the pick up. Cost, performance and fairness of the system is a critical component of the system.

6) What is the closest known technology?

The most common system used today, is two way radio network. Voice communication is then the communication tool for information gathering and decision making for the optimal distribution of jobs. There are several issues with this system; 1)The driver must be at alert of the calls from the Dispatch Center for calls that are within his range and must make a quick decision on if he should answer or not (mentally he needs to filter all other calls not relevant to him). If he answers and he does not get to the fare location within a determined period of time he can be fined. So after just a few hours of using this system, the driver suffers of high stress levels.
2) Some of the drivers answer any calls, even if he is not close to the fare site, just motivated to maximize income or challenge the system. Now it becomes a race of who presses the radio button fastest and not who can actually provide the optimal service. 3) Sometimes other drivers in the vecinity of the pick-up may hear of the call in the radio but even if they have not pressed the button they may pass by and pick up the fare and then not report it. This issue can lead to disputes between the cab drivers. 4) There is also the issue where the driver that does not belong to the same company may be monitoring the frequency with a scanner and stealing the calls from the drivers that should be getting the calls.

Inventor _____ Date __12/16/98__
Inventor _____ Date __1/18/98__
Inventor _____ Date _____
Witness _____ Date __12/18/98__
Witness _____ Date __12/18/98__

7) What is the invention?
To be able to selectively deliver a message to a selected number of drivers according to an optimal criteria.

The invention is to interface a One Way Alpha Pager with a GPS receiver. The system will receive all jobs broadcasted as well as the optimization criteria to be used and based on this it will present only the jobs to the driver who have met the criteria. The expectation is that a great number of jobs would be filtered and hence the stress level reduced. Furthermore, the jobs presented to the driver would be identified by an unique ID and hence allowing to do the final settlement of the job allocation over the two-way radio confidentially by using the job ID rather than the customer name or address.

This same idea would also work with a Two-Way Alpha pager interfaced to a GPS. Using the wireless data communication as the means to complete the entire settlement in the job allocation.

Hence, the system can graciously migrate from a one-way infrastructure to a two-way infrastructure.

How does this invention resolve the problem (s) and fulfill the need(s) in a new way.
The Dispatch Center would receive a call for a pick-up from somewhere in a metropolitan area. The Dispatcher would type the location in the control center/dispatch terminal that would automatically create a message with the code, the latitude and longitude coordinates for this address and the as well as the optimization criteria.....desired radial distance. This message would be sent over the air to all the taxis. The pager with GPS in the taxis would be programmed to receive the page, check the distance that he is (GPS) from the location coordinate of the fare. Only if he is inside the selected distance by the dispatcher will the taxi see the code in his pager. When he sees the code in his pager, he would answer via Two Way radio sending his identification and accepting the fare to the Control Center. If no acceptance is received in a period of time the terminal would re-send the message but with an increase in the radial distance.

Because of the paging selectivity the procedure is fair, less stressful for the driver, and low cost. The traffic of the two way radio communications should be reduced drastically since they are only answering on specific pages and the fare address is in the pager. In addition the pirate taxis could not pick up the information via scanner.
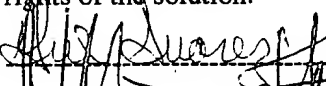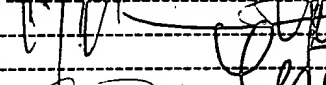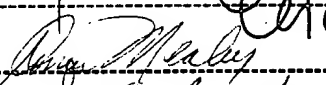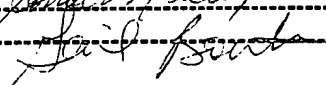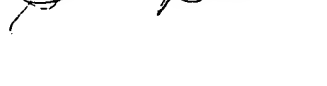
This section to be completed by product manager
1) Products to be used in:
   Automatic Vehicle Location, and Communications devises.

What is the business impact of having a patent on this invention, for Motorola and /or competition:
There are areas where the business model may not allow to invest in Two Way paging, but One Way paging infrastructure does exist. This solution is a low cost alternative and Motorola would have the rights of the solution.

Inventor--Date-- 12/11/98
Inventor--Date------
Inventor--Date------
Witness--Date-- 12/18/98
Witness--Date-- 12/18/98